ABSTRACT OF THE DISCLOSURE

A method of controlling operation of a train (T) for passage of the train through a tunnel. The train has a plurality of locomotives (L1-Ln) pulling the train. The position of the lead locomotive relative to the tunnel entrance is determined, as is the amount of time before the train enters the tunnel. Each locomotive is separately configured for passage through the tunnel as a function of performance characteristics of the locomotive and the locomotive's current operating status, as the train approaches the tunnel. Once the train enters the tunnel, the performance characteristics of each locomotive are continually monitored. The performance requirements for one or more of the locomotives are then dynamically changed as a function of conditions within the tunnel and the current performance characteristics of each locomotive. This is done to maintain a sufficient combined performance capability from the locomotives to move the train through the tunnel. Upon exiting the tunnel, the locomotives' full operating capabilities are quickly restored by enhancing their thermal recoveries.